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County Borough of Wolverhampton.

# ANNUAL REPORT
TO THE
Education Committee.

W. SPENCER BADGER, M.B., Ch. B. (Vict.), D.P.H. (Camb.),
MEDICAL OFFICER TO THE EDUCATION COMMITTEE.

1912.

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Whitehead Bros., Printers, King Street, Wolverhampton.

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# County Borough of Wolverhampton.

## To the EDUCATION COMMITTEE.

Ladies and Gentlemen,

I have pleasure in presenting to you my Fourth Annual Report. This covers the work performed during the year ending December 31st, 1912.

The Report is considerably shorter than its predecessors. It is hoped that this fact will accord with the Committee's views, and will at the same time facilitate their consideration of any points that may be worthy of attention.

It may be useful to give first a brief survey of Medical Inspection in 1912. Statistical and other details of the work done during the year will then be mentioned later in this Report.

## GENERAL SURVEY.

The Medical Staff consisted of the School Medical Officer, two School Nurses, and one Clerk—all whole time Officials. In March, 1912, the School Medical Officer was appointed also Assistant Medical Officer of Health, the change being in accordance with recognition of need for overcoming the inherent defects of a dual administration in School Hygiene. The Board's Code requirements for Medical Inspection remaining practically the same as in the preceding year, our Routine Inspections continued to apply to "Entrants" and "Leavers" only. In addition to Routine Inspections, Special cases were also submitted, and many defective scholars were re-examined. Much miscellaneous work was also performed. Parents continued to attend Inspection in large numbers; their percentage attendance last year constituted, I believe, a record for England and Wales. The School Nurses accomplished much excellent work. One of them always attended Routine Inspections; the other steadily prosecuted a cleansing reform, paying surprise visits to the Schools; both Nurses also devoted a portion of their time to following up cases requiring Medical Treatment. As a result, mainly, of their work, the filthy condition of many scholars improved. This improvement would be accelerated by one or two judicious prosecutions of parents, failing which the worst offenders repeatedly allow the condition of their children to lapse into one of dirt and neglect. In such cases the only remedy left is to turn the children out of School indefinitely. This has already been done in several cases, and is likely to cause financial as well as educational loss if some other remedy be not found. The Committee are seeking a remedy. There are three methods* by which an Education Committee, when convinced that it is their duty to do so, may prosecute the persistently neglectful parents of dirty children, viz.: (1) By means of the Attendance Bye-Laws; (2) Under Section 12 of the Children's Act, 1908; (3) Under Section 122 of the same Act. The first method was attempted here, but was not altogether successful (although apparently generally successful during 1911 in 43 other Education Areas). The second method has not been utilised here so far as I am aware. The third method involves the provision and use of a Cleansing Station.

Plans have already been approved for the adaptation of certain premises for this purpose, and the Committee intend to proceed upon these lines. The weak spot in connection with this scheme is the likelihood of re-infection occurring through a cleansed child returning to a verminous home—no provision having yet been made for disinfecting verminous bedding, &c. The absence of such provision will probably be a cause of failure. Medical defects continued to be notified and followed up. As a result, more than one-half of those followed up obtained Medical Treatment. Many of these had been notified in preceding years. Treatment was frequently long delayed, and often otherwise unsatisfactory. A good deal of time was wasted upon a few indifferent parents. The Committee desire to promote their scheme of Medical Treatment of certain defects. The Board have not yet seen their way to sanction this scheme in its present form. There has been considerable discussion without much advance. The difficulty centres mainly upon the question of Treatment by Officials responsible also for Inspection. The Board recommends that the School Medical Officer's Staff should undertake the Refraction (Eye) work. The Committee is opposed to this principle and would like the work to be done by a local practitioner. The former plan, recommended by the School Medical Officer in January, 1911, obtained only the temporary approval of the Committee. The Board also desire certain improvements involving extensions in the organisation of Medical Inspection, independently of Medical Treatment. These, if fully carried out, will necessitate an increase of Staff. Improvements in organisation are certainly required. These mainly concern the notification of Disease to the School Medical Officer; the provision of an Inspection Centre to which cases may conveniently be referred for examination; and the co-ordination necessary to secure efficiency. Elsewhere in this Report the future possibility of utilising School Nurses as Attendance Officers and Health Visitors is mentioned. It has been frequently suggested that in the absence of special facilities for Medical Treatment, Medical Inspection implies waste of time and money. This is obviously a mistake. Medical Inspection is slowly accomplishing in this town that which was previously found to be impracticable, in spite of the best endeavours of Teachers and others. The general standard of cleanliness is being raised. This may sound a simple matter; in reality it implies a great task and an equally great reform. Ideals of health also are undergoing change. As to Medical Defects, the relative value of drugs is popularly much over-rated. Reforms in Domestic Hygiene and in the upbringing of children would accomplish infinitely more good than medicines. Appropriate Medical Treatment is, however, urgently required for many cases. In a few of these, unwillingness of the parent is responsible for the failure to provide it. In many others, the provision is practically beyond the parents' means. A development of Medical Inspection is therefore inevitable. At present we are only marking time in accordance with a somewhat narrow, but perhaps necessarily restricted view of the School Medical Service. We look forward with confidence, however, to the time when the aims and object of this Service will receive the recognition to which they are entitled.

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* See Annual Report, 1911, Board's Chief Medical Officer, Appendix B.

## SCHOOL ACCOMMODATION.

At the end of the year 1912 the School Accommodation was as follows:—

| | |
|---|---|
| 26 | Elementary Schools. |
| 1 | Higher Elementary School. |
| 1 | Special School. |
| 1 | Day Industrial School. |

### ALTERATIONS.

A new Infant Department was opened at Bingley Street School on 16th April, 1912.

The Senior and Junior Mixed Departments were at the same time converted into Boys' and Girls' Departments, respectively.

Improvements and additions have been effected at St. Luke's School in the Boys' and Girls' Departments.

The number of Scholars, Average Attendance, and Percentage Attendance for the last completed week in the year, were as follows:—

| | |
|---|---|
| Number of Scholars on Rolls ... | 17,307 |
| Average Attendance ... ... ... | 15,873.5 |
| Percentage Attendance ... ... | 91.1 |

## SUMMARY OF WORK, 1912.

The School Medical Officer's Inspections were as follows:—

| | |
|---|---|
| Routine Inspections ... ... ... | 3,372 |
| Specially submitted ... ... ... | 216 |
| Re-examinations ... ... ... | 395 |
| | 3,983 |

In addition to the foregoing, classes were inspected and advice given with regard to certain children not included in the above. Other miscellaneous work is mentioned elsewhere.

The number of printed notifications of Medical Defect issued was 727.

The School Nurses' visits and inspections were as follows:—

| | |
|---|---|
| Visits to Schools ... ... ... | 922 |
| Visits to Homes ... ... ... | 1,661 |
| Total Visits ... | 2,583 |
| Total number of Inspections ... | 13,380 |

The number of printed notifications issued in respect of dirty or verminous cases was as follows:—

| | |
|---|---|
| First Notices ... ... ... | 1,766 |
| Second Notices ... ... ... | 252 |
| Total Notices ... | 2,018 |

The total number of children excluded from School under Article 53 (*b*) of the Code was 424. Of this number, 8 were excluded indefinitely; the duration of exclusion in the remaining 416 averaging 6.1 School days per scholar.

At the request of the School Managers, and with the approval of the School Medical Officer, the Infants' Department of St. Jude's School was closed on 27th March until the end of the Easter Holidays, in accordance with Article 45 (b) of the Code, on account of an epidemic of Mumps of exceptional suddenness and severity. This was the only School closed on account of disease during the year.

## CLERICAL WORK.

In June, 1912, the Official who had carried out single-handed the clerical work of this department since its origin in 1908, made application to the Primary Committee for increase of salary.

This application was refused by the Committee without any reference to the School Medical Officer. Subsequently, upon hearing that consideration was being given to a proposal to transfer this Official at an increased salary to another department in which the prospects appeared brighter, the School Medical Officer wrote protesting against the proposed transference and supporting the application for increase of salary by pointing out that the latter compared unfavourably with those of his colleagues in other departments.

The increase previously refused by one Committee was then granted by another; at the same time the transference, against which your Medical Officer protested, was permitted by the latter. The transference subsequently became formally accomplished.*

*** The Official referred to obtained immediately afterwards a better paid post with another Education Authority.**

I respectfully submit that the question of transference of the School Medical Officer's Clerk to another department would better have been considered by the same Committee primarily responsible for his appointment, and having some knowledge of the work of his department.

It is, I think, not unreasonable to ask also that any future decision involving serious interference with the work of the School Medical Officer's department should be made by the Committee after consultation between the Committee and their Medical Officer, and, if possible, with his concurrence.

A considerable amount of purely clerical work is thrown upon the School Medical Officer's department in connection with the transfer of Medical Schedules. Over twelve hundred applications for the Schedules of transferred children had been dealt with by the end of 1912, and in one half of these reference had to be made to Head Teachers by correspondence. This work is purely secretarial and would be better undertaken by the Attendance Department.

## ROUTINE INSPECTIONS.

The Routine Inspections of "Entrants" and "Leavers" in 1912 are classified according to age in the following table:—

| Age. | Boys. | Girls. | Total. |
|---|---|---|---|
| 4-5 | 16 | 24 | 40 |
| 5-6 | 796 | 756 | 1,552 |
| 6-7 | 117 | 132 | 249 |
| 7-8 | 35 | 35 | 70 |
| 8-9 | 2 | 9 | 11 |
| 9-10 | 1 | 1 | 2 |
| 10-11 | — | 1 | 1 |
| 11-12 | — | — | — |
| 12-13 | — | 1 | 1 |
| 13-14 | 646 | 639 | 1,285 |
| 14-15 | 76 | 56 | 132 |
| 15-16 | 11 | 17 | 28 |
| 16-17 | 1 | — | 1 |
| All Ages | 1,701 | 1,671 | 3,372 |

The Committee have lowered the age at which entry to the Elementary School is permitted, some scholars now entering at the age of 4 years and 9 months. From the point of view of School Hygiene, lowering the age of admission appears to be a retrograde step. There are some who consider that the age of entry might instead be raised with advantage. Fortunately, the change affects only a limited number of children.

In order to avoid the leakage caused by a certain number of elder scholars leaving School before being reached by Medical Inspection, we have arranged to anticipate their departure by a longer period. This will increase the number presented for examination.

We have reason to believe that a certain number of neglected children are purposely kept at home to avoid Medical Inspection. The Committee should be prepared to check any devolopment of this practice.

## SPECIAL INSPECTIONS.

216 scholars were also specially submitted for examination. Their defects are classified on pages 18 and 19.

## RE-EXAMINATIONS.

As opportunity permitted, cases previously notified as requiring Medical Treatment were re-examined. 395 defective cases were thus re-examined in 1912 and the results noted. We have not yet tabulated the latter, although a practical indication of the results of treatment may be gained from the table on page 24, where the figures given are based in part upon the School Medical Officer's observations, and from pages 21-23, where the Medical Treatment of certain defects is discussed.

## ATTENDANCE OF PARENTS AT ROUTINE EXAMINATIONS.

The interest of parents in Medical Inspection was more than fully maintained in 1912, the proportion attending during the year reaching 91.1 per cent.

This figure is identical with the percentage attendance of scholars attending the Elementary Schools in the last completed week of 1912. The attendance of scholars being secured by compulsory powers while that of parents cannot be compelled, the percentage attendance of the latter is remarkable.

The attendance for the last five years has been as follows:—

| Year ... | 1908* | 1909 | 1910 | 1911 | 1912 |
|---|---|---|---|---|---|
| % Attendance | 83·5 | 86·6 | 88·3 | 89·3 | 91·1 |

The attendance was highest at St. Luke's School where 123 scholars were examined in the three departments, the parent or guardian attending in every case. It was almost equally good at Walsall Street School where 100 scholars were examined in the three departments, and only one parent failed to attend. That at Bingley Street was only slightly inferior. The poorest attendance, as last year, was at the Higher Grade School where 284 scholars were examined, only 201 parents attending. This School, however, has already been stated to labour under special disadvantages in the matter of securing the attendance of parents.

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* Incomplete Year.

## RESULTS OF ROUTINE INSPECTION.

Medical and other defects discovered under this heading continued to be noted and registered as in previous years. Many of the 1912 records being similar to those previously reported in detail, we have refrained in this Report from mere repetition of statistics; instead we give the results of Routine Inspection that vary in character or extent from information that has already been given. The following up of defective cases requiring Medical Treatment is described on page 19.

### GENERAL CONDITION OF CLEANLINESS, CLOTHING, AND FOOT-GEAR.

Last year I was glad to report a general improvement in these matters; this year I am able to state that with few exceptions this general improvement has been maintained, and in some instances is very striking.

Improvements as regards sufficiency and Cleanliness of Clothing, Cleanliness of Body, and Foot-gear in the total number of scholars age 5 and 13, are shown by the percentage results in the accompanying table (page 11), where the corresponding figures for the two previous years are also given for the purpose of comparison.

It will be seen that improvement is indicated nearly all along the line. There has been no alteration in the standard observed, which is supervised by the School Medical Officer; and the observations for nearly two years have been made by the same individuals. The results are, therefore, fairly comparable.

It will be noticed in the case of Foot-gear that, while there is a marked improvement at one end of the scale, there is also an increase, at the other end, in the proportion of scholars noted as wearing bad or hopeless Foot-gear. The explanation is that this record is influenced by the supply of clogs.* While poverty was greater in 1911 than in 1912, the clogs supplied by the Distress Committee in 1911 in order to overcome the deficiencies of necessitous cases had the effect of reducing the number that would otherwise have been found deficient that year.

* Boots and Clogs were supplied by the Distress Committee as follows:—During the winter months 1910-11, 253 pairs; 1911-12, 662 pairs; 1912-13 (to date), 13 pairs.

### TABLE I.—General Condition, Percentage Results for the last 3 Years.

| Year. | Number Examined at Ages 5 & 13. | Sufficiency of Clothing. | | | Cleanliness of Clothing. | | | Cleanliness of Body. | | | Footgear. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Good. | Somewhat Poor. | Very Poor. | Clean | Somewhat Dirty. | Very Dirty. | Clean. | Somewhat Dirty. | Very Dirty. | Good. | Somewhat Defective. | Bad. | Hopeless. |
| 1910 | 2924 | 37·0 | 58·5 | 4·5 | 53·7 | 43·6 | 2·6 | 63·9 | 34·8 | 1·3 | 22·3 | 66·2 | 10·1 | 1·5 |
| 1911 | 2916 | 51·0 | 44·1 | 4·9 | 78·2 | 20·5 | 1·3 | 76·0 | 23·1 | 0 9 | 30·8 | 58·2 | 9·8 | 1·2 |
| 1912 | 2837 | 67·9 | 28·9 | 3·2 | 85·9 | 13·4 | 0·7 | 88·9 | 10·7 | 0·4 | 41·2 | 45·6 | 10·2 | 3·1 |

NOTE.—The number of Children wearing "hopeless" footgear, was largely affected by an irregular distribution of Clogs. (See page 10).

The results recorded in the table then, taken together, may be regarded as satisfactory and as indicating a real improvement in the care and condition of the scholars examined. It must not of course be understood that the figures given represent the numbers normally existing under each class. The reason for this has already been explained to depend upon the special preparation made by parents for the occasion of Inspection.

The Nurses have continued to make systematic examination of heads at Routine Inspection, the results being, as before, separately recorded in respect of Verminous Condition, and Soap and Water Cleanliness. The improvement in respect of the former condition in girls aged 13, is shown by the following figures:—

| | 1911. | 1912. |
|---|---|---|
| | No. Examined. | No. Examined. |
| | 635 | 639 |
| | Percentage. | Percentage. |
| Free from every trace of Vermin ... | 3.5 | 18.0 |
| Vermin and Nits ... | 9.6 | 4.5 |
| Nits only ... ... | 86.9 | 77.5 |
| | 100.0 | 100.0 |

Apart from the verminous condition referred to above, none of the heads were recorded as very dirty in respect of neglect of soap and water.

It is satisfactory to be able to state that the improvement, which is very striking, is not limited to the occasion of Routine Inspection; the results of unexpected examination show an almost precisely similar improvement (page 27).

### HEIGHT AND WEIGHT.

The same reason that caused the rejection of records of Height and Weight from my Annual Report for 1911, limits also the number upon which it is possible to base reliable statistics this year. I have, however, to record with satisfaction that the equipment of weighing machines sanctioned by the Committee on 18th December, 1911, and installed in the Schools during August, 1912, is now likely to permit of an accurate and trustworthy record of the Height and Weight of scholars being made in each School. This improved equipment marks a substantial advance.

Apart from the inefficiency of the means hitherto available for weighing scholars, we shall not readily forget our three years' troublesome experience resulting from the limited provision of two weighing machines for use in 29 Schools.

The average height and weight of scholars at Routine Inspection last year has been estimated. The estimate was however necessarily based, as explained above, upon those records only which were above suspicion as to their accuracy. This number was too small to justify positive conclusions, but it may be said that the general increase in height and weight in 1910 and 1911, referred to in my last Report as being without any satisfactory explanation, apparently continues.

## DENTAL HYGIENE.

A commencement appears to have been made in the practice of daily cleansing of teeth. This was noted mainly in elder scholars; thus, of 1,285 boys and girls aged 13 examined in Routine Inspection, 162, or 13% were found last year to make daily use of a tooth brush. The practice was more frequent in girls than in boys and was practically limited to one or two Schools—the Higher Grade and St. Peter's Schools being foremost in this respect.

## DEAFNESS.

We made some attempt to estimate the extent of deafness at Routine Inspection, though this was rendered difficult in many Schools by reason of the various and sometimes incessant noises. It is difficult also to make a satisfactory test in the case of Infants. We prefer the whispered voice test as being a more reliable test than that dependent upon watch-ticking.

In several Schools, however, we have had to fall back upon the latter, the former test requiring a room of some size, which was not always available, for its proper execution. The degree of intelligence of many scholars is so low that testing has to be carefully performed to avoid sometimes registering results due rather to this fact than to any defect in the sense of hearing.

Our record can only be regarded as an approximate one. We made an arbitrary classification into "defective" and "very defective" hearing, the latter indicating such a degree of defect as would, if affecting both ears, qualify a scholar for Institutional Training.

Of 2,837 boys and girls aged 5 and 13 examined in Routine Inspection, 150, or 5.3% were recorded as more or less defective in the hearing of one or both ears. Of this number the hearing was "very defective" in 11 cases, the right ear being affected in 8 cases, the left in 2, and both ears in 1.

We found deafness to exist in several scholars thought to be merely stupid, and it may be useful to remind teachers of the ease with which a slightly deaf child may be blamed for stupidity. Generally, teachers were aware of any marked defect, and, at their own discretion, had altered the position of the child in class.

## TUBERCULOSIS.

Cases of Tuberculosis discovered in the course of Medical Inspection have been tabulated below according to the various parts affected. The cases resulting from Routine Inspection have been also classified according to age. For the sake of convenience those resulting from "Special" Inspections (page 18), are also given here. The cases of Phthisis were all notified to the Medical Officer of Health in accordance with the new (Tuberculosis) Regulations, 1911.

| Nature of Inspection. | Age. | Sex | Number Examined. | TUBERCULOSIS OF | | | | | | Total Cases. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Lungs. | Glands. | Bones. | Spine. | Joints. | Skin. | |
| Routine | 4 | B & G | 40 | — | — | — | — | — | — | — |
| | 5 | B & G | 1552 | 4 | 6 | — | 1 | — | — | 11 |
| | 6 | B & G | 334 | 2 | 3 | 1 | — | 1 | — | 7 |
| | 13 | B & G | 1284 | 6 | 17 | 2 | — | — | 1 | 26 |
| | 14 & over | B & G | 158 | — | 1 | — | — | — | — | 1 |
| Total Routine | All Ages | B & G | 3368 | 12 | 27 | 3 | 1 | 1 | 1 | 45 |
| Special | All Ages | B & G | 216 | 5* | 1 | 1 | 1 | — | — | 8 |
| Total Routine & Special | All Ages | B & G | 3584 | 17* | 28 | 4 | 2 | 1 | 1 | 53 |

* In addition to this number 13 cases specially submitted were doubtful cases of Phthisis.

We continue to find a large number of children who cannot be definitely declared to be suffering from Tuberculosis, but who are beyond doubt in a condition most favourable to the development of that disease.

This question is further referred to on page 23.

## OTHER DEFECTS.

110 cases of respiratory obstruction from enlarged tonsils or adenoids, 191 cases of defective vision (including squint), and 21 cases of other external eye disease, discovered at Routine Inspection, were notified. The number notified does not necessarily represent the total number found defective under each heading. Information as to the latter has been given in detail in previous Reports.

## OCCUPATION OF SCHOLARS OUT OF SCHOOL HOURS.

The figures given below show the number of boys and girls aged 13 who were recorded at Routine Inspection as working out of School hours.

The record is probably an incomplete one, but it shows that employment out of School hours is very common.

| | Number of Enquiries. | No. Working out of School Hours. | Percentage. |
|---|---|---|---|
| Boys ... ... | 647 | 231 | 35.7 |
| Girls ... ... | 661 | 69 | 10.4 |
| Total ... ... | 1,308 | 300 | 22.9 |

No scholars attending School were apparently availing themselves of the proviso for partial exemption contained in the Committee's Bye-Laws.* Any work done out of School hours therefore was an addition to the work implied by ordinary School attendance.

Many cases of over-work were attributable to this cause, and it becomes increasingly evident that scholars regularly employed out of School hours are frequently unable to do justice to their work in School. They often have insufficient time for meals, and are frequently kept at work till late at night. They are in consequence commonly reported to be sleepy, or dull and stupid at their work.

Upon examination they are often found to exhibit poor nutrition and functional heart defects. These conditions vary in severity with the nature and extent of the occupation followed.

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* Committee's Year Book, 1912, p. 14, Bye-Law V.

In the case of boys, the commonest forms of occupation were selling or delivering papers, acting as errand boy for tradesmen, delivering coal or milk, taking dinners, and acting as barber's assistant.

The hours devoted to such occupations varied from half an hour to over 45 hours per week.

In the case of girls, the most common occupations were domestic service of some kind, assisting in shop, running errands, and " minding " babies.

The latter occupation from an educational point of view might seem to be free from objection; in practice, however, some of the babies so " minded " called for our sympathy.

The most obvious harm resulting from these occupations was seen in cases where the work involved long continued strain or exertion. One boy, for example, was employed for 45 hours per week at coal carrying; a girl also was similarly employed. In such cases the effect of the strain was frequently clearly apparent upon the heart. The occupations, however, were often undesirable from other points of view, as for instance, in the case of a boy who was regularly employed and paid for hanging about the streets with a blind man who sang; or as in the case of a girl who was occupied in the streets with an ice-cream cart the whole of Saturday and Sunday each week.

An exceedingly rickety girl of stunted growth and intelligence, and with deformed limbs, was found to be regularly employed in carrying and " minding " a baby. Her mother was sent for and cautioned; she discontinued the girl's work and took her to the Hospital instead.

In several instances we have successfully drawn the parents' attention to a condition of overwork; but we are reluctant to press the point when the condition is due to circumstances of domestic difficulty, the small wage earned by the child being perhaps an indispensable addition to the family income.

In better class cases, work outside School hours is sometimes undertaken quite unnecessarily, and money so earned is commonly spent at music halls or picture shows, these forms of entertainment being largely patronised by scholars of all classes, including the poorest.

It is true that well-nourished scholars are occasionally met with who appear to derive no harm from following a light occupation, such as delivering papers. Unfortunately it appears the exception for such an occupation to be chosen or regulated with a view to its future utility; and upon the other hand, the same circumstances that in certain cases are responsible for malnutrition, tend also to the harmful employment of scholars out of School hours.

## NIGHT SWEATING.

Being struck by the frequency with which a history of Night Sweating was given by parents attending Medical Inspection, enquiries were made upon this subject in respect of 752 scholars of both sexes—Entrants and Leavers—examined in 1912. Habitual sweating only, varying in frequency from once a week to every night in the week, was recorded, and an arbitrary division was then made into "usual" and "occasional" sweating, accordingly as a scholar appeared to be subject to night sweats more or less than three times a week. Sweating less than once a week, and that due to temporary indisposition, were not included. In young scholars the mother's statement was recorded; in elder children the record was usually based upon the scholar's own statement, corroborated by the mother. The enquiries were made during the three winter months, October—December. The sweating recorded includes that of head and body.

Of the total number of 752 scholars in respect of whom these enquiries were made, 24% were alleged to be regularly subject to night sweats. In two-thirds of this number the sweating was "usual." In the remaining one-third it was "occasional," *i.e.*, it occurred with less frequency but with regularity from once to three times a week. The sweating habit was alleged more frequently in the case of entrants than in leavers, and the head was apparently affected more often than the trunk, although sweating of the entire body was frequently reported.

The amount of sweating was apparently profuse in a large proportion of the cases.

The extent of malnutrition of these scholars was also calculated. The proportion malnourished of the total number was 18%. It may be mentioned that this figure corresponds almost exactly with that given last year for a similar estimation. Based upon the number sweating, the proportion malnourished was 20%.

The large proportion of scholars apparently subject to night sweats appears to be of considerable significance.

Sweating is physiological in connection with heat regulation and the maintenance of an even temperature; but regular night sweating, as recorded above, of 24% of Elementary School children cannot satisfactorily be explained upon a physiological basis.

Some factors that may be concerned in its production appear to be :—

(*a*) Extrinsic Causes—

Over-heated, moist, impure atmosphere of sleeping rooms.
Excessive and unsuitable bed clothing.
Overcrowding.

(*b*) Intrinsic Causes—

Loss of tone of nerve centres.
Respiratory defects, resulting in increased frequency and depth of respiratory movements.
Excessive heat production.
Circulatory defects.
Imperfect aeration of blood.
Toxic conditions.

With regard to these factors, the extrinsic causes mentioned above no doubt operate powerfully in the poorest homes, where two or three or more children possibly occupy one bed in an overcrowded house. Of the intrinsic causes, insufficiency of sleep no doubt largely contributes to loss of nerve tone.

The majority of the scholars examined were suffering from coughs—two or three at least from phthisis. Many bore the imprint of rickets. Some were convalescing from recent disease. A few were overloaded with clothes; a greater number were insufficiently clad in the day time. Night sweating, however, although apparently more frequent in poor-class Schools, was not limited to the scholars of poor homes; its occurrence was often alleged in the children of well-to-do parents. In such cases the precise cause was sometimes of considerable interest. In general, however, one can only conclude that this phenomenon is an evidence of defective hygiene and of malnutrition, of both of which there is such abundant evidence in the Elementary Schools.

## SPECIAL INSPECTIONS.

216 cases were specially submitted for examination. The defects are classified below as follows:—

Tuberculosis—

| | | |
|---|---|---|
| Phthisis ... ... ... ... | 5 | |
| Doubtful Phthisis ... ... ... | 13 | |
| Glands ... ... ... ... | 1 | |
| Bones of leg ... ... ... ... | 1 | |
| Spine ... ... ... ... | 1 | |
| | —— | 21 |

*Continued.*

| | | |
|---|---|---|
| Eye Cases— | | |
| Defective Vision | 11 | |
| Squint | 3 | |
| Other External Eye Disease | 6 | |
| | | 20 |
| Ear Cases— | | |
| Running Ears | 6 | |
| Deafness | 2 | |
| | | 8 |
| Skin Cases— | | |
| Ringworm | 27 | |
| Scabies | 4 | |
| Other | 4 | |
| | | 35 |
| Heart Cases— | | |
| Organic Disease | 1 | |
| Functional Disease | 2 | |
| | | 3 |
| Mental Cases— | | |
| Backwardness | 12 | |
| Mentally Defective | 14 | |
| | | 26 |
| Enlarged Tonsils, &c. | | 9 |
| General Debility and various* | | 94 |
| | | 216 |

The results of notification and the treatment of the foregoing Special Defects are described together with those of Routine Inspection on page

* Some Scholars are included in this class, whose defect was mainly one of dirt.

## FOLLOWING UP AND TREATMENT OF DEFECTS.

Defective cases resulting from Routine and Special Inspections were duly notified, and followed up by the School Nurses.

This important branch of work was prosecuted with even greater energy than in the previous year, and the School Nurses' efforts proved more successful.

728 new cases were notified during 1912. In addition, 271 cases that were notified in previous years but had not yet obtained the necessary treatment were similarly followed up, making a total of 999 cases dealt with.

At the end of the year the result of notification in 173 cases had not yet been reported. In the remaining 826 it was found that a proportion nearly equivalent to three-fifths had obtained Medical Treatment, while two-fifths had failed to obtain it.

So far as actual numbers go this result is an improvement upon that of previous years and is due to the tact, energy, and persistence with which the work of following up has been performed by the School Nurses.

An analysis of the total 999 cases dealt with is given in Table II., page 24, which shows the various defects notified, together with the results of notification and of treatment—the latter estimate being based in part, but not wholly, upon the School Medical Officer's re-examinations and observations.

A proportion of three-fifths medically treated during the year sounds more satisfactory than it really is. It must be remembered that the number treated includes many cases where the treatment had been long delayed. In some cases two, or even three years had elapsed between notification of the defect and the obtaining of treatment. It is needless to point out how inconsistent such delay is with proper Medical Treatment upon lines of preventive medicine.

It should be also noted that for one cause or another the Medical Treatment obtained was not always appropriate or satisfactory.

It is perhaps advisable that the Committee should have some idea of the total work that was entailed in securing the foregoing result. In Table III., page 25, the same cases mentioned in the preceding Table are analysed in connection with the total visits paid to them by the School Nurses in the course of following up, from the date of their notification to the end of 1912.

From this Table it can be seen that of 833 cases visited, rather more than one-half were visited once; the remaining cases had been re-visited—the number of visits varying in each case from two to thirteen, and the total number amounting to 1,650.

In Table IV., page 26, the totals "treated" and "untreated" are classified according to defect, and an analysis is made of the means of treatment, and of the cause of failure to obtain treatment, respectively.

It will be seen from the Table that of the 502 total cases treated, 298 obtained treatment at the Hospital, and 204 at the hands of a private practitioner. With regard to the 324 total cases untreated, the cause to which failure was most frequently attributable was poverty and inability to obtain a Hospital Note.

A few remarks may be added concerning the treatment of these defects.

### VISION AND SQUINT.

A larger proportion of cases under this head would have been reported as "treated" if we had included in that category both those who obtained a ticket for the Eye Infirmary, and those who not only obtained a ticket but had commenced to undergo treatment.

It has been explained in my previous Reports that such treatment frequently lapses. I consider this aspect of the question a somewhat serious one, inasmuch as it frequently results in a child being temporarily blinded by the use of atropine without any resulting benefit later on.

### EXTERNAL EYE DISEASE.

These cases also have occasionally to wait indefinitely until the parents can obtain a Hospital Ticket. In the meanwhile, especially when the defect takes the form of acute inflammation, irreparable damage may be taking place in their eyes.

### RUNNING EARS.

The inadequacy of treatment for this defect has been previously referred to.

### DEAFNESS.

This defect, commonly associated with adenoids or enlarged tonsils, has been referred to on page 13. In several cases we have met with obstruction in pressing for treatment. The following case is typical of many others:—

> J.B., aged 7, attending one of the Voluntary Schools, was found to be very deaf and consequently backward in School. His mother was notified of the boy's deafness in July, 1910. She was unwilling to secure treatment, and pretended that the boy was not deaf. Eight visits were paid by the School Nurse, but it was not until February, 1912, that Medical Treatment was—very unwillingly—secured. The mother then admitted improvement in the boy's condition.

The remarks in my Report for 1911 (page 48) in reference to such cases as the above are still applicable.

In many cases, however, the lack of facilities for treatment was the primary cause of failure, as in the following:—

### TONSILS AND ADENOIDS.

> The parent of R.C., a boy suffering from enlarged tonsils, was notified of the defect in June, 1910. By December, 1912, thirteen visits had been paid by the School Nurse, and the defect was, and is, still untreated. The mother appears idle and indifferent to the defect. She states, however, that she took the child to the Hospital over a year ago, and has been awaiting treatment ever since.

In the following case the result of delay was more serious:—

> B.L.B., a boy aged 7, attending one of the Council Schools. He has adenoids and pigeon breast deformity, and is mentally dull. The defect was notified in June, 1910, and twelve visits have been paid by the School Nurse. Five months after notification the boy was taken to the Hospital; his mother states that he has been waiting for a bed ever since. The defect is still untreated and unrelieved.*

The defective treatment of Adenoids and Tonsils already referred to (Annual Report 1911, page 40), was still evident. In several cases no attempt whatever had been made to follow up the operation with breathing exercises. We are now attempting to secure the valuable co-operation of teachers and parents in this matter.

I would again strongly emphasise the undesirability of cases of Tonsils and Adenoids being sent home within 24 hours of operation.

Several cases so discharged have come under our notice that have apparently developed somewhat serious complications after operation—possibly for want of proper attention—and the operation has naturally been blamed for these untoward results.

### SKIN CASES.

The treatment of skin cases continues to be most unsatisfactory, and the loss of grant incidental to the numerous and prolonged absences from School must be very considerable.

The question of differential treatment of School children by the General Hospital Authorities was the subject of correspondence during the year. An intimation was received in September from one of the Honorary Staff that it was intended to discontinue the X-Ray treatment of all cases of ringworm, but that there was no present intention of according differential treatment to School children.

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* In such cases it must not be concluded that there was, in fact, any omission on the part of the Hospital Authorities

I am still of opinion that the drug treatment of this complaint properly carried out by the Education Authority would effect a considerable amount of good at an exceedingly small cost.

### GENERAL DEBILITY, &C.

The treatment of a large class of children suffering from Anæmia, poor nutrition, and general debility, is an important problem that might profitably be considered by the Committee.

In these scholars, Medical Treatment limited to the use of drugs is relatively useless.

Their appropriate treatment is a matter of fresh air and proper feeding.

There is no doubt that an Open-Air School would meet the wants of a great number of such children in a debilitated and pre-tubercular condition. At present the facilities for their treatment are quite inadequate, and there appears to be no Sanatorium treatment available at all for children in this district.

There is ample scope here for philanthrophy upon scientific and educational lines. An Open-Air School where children could be transferred during the day—and possibly in the summer time stay the night also—from the smoke-laden atmosphere of the town to enjoy healthy conditions of life and education in the country, would restore many scholars to health, and prevent a still larger number of others from falling victims to disease.

The surroundings of Wolverhampton are particularly well fitted to afford a suitable site for an Open-Air School, which could probably be selected within easy distance of a tram terminus in two or more alternative directions.

I have previously referred to the question of preventible smoke pollution in relation to the respiratory diseases of children (Annual Report, 1910). The present indifference to wholesale pollution of the atmosphere in towns seems to be the more remarkable in view of the present popular enthusiasm for fresh air and sanatoria at a distance.

In this connection the opinion of Sir James Chrichton-Browne is worth quoting:—" Fresh air supply and smoke abatement are really to my thinking more pressing questions in England at the present time than the indefinite multiplication of Sanatoria."*

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* **Berlin Congress, 1912—Address to the Section of Child Study and School Hygiene.**

## TABLE II.—Notified Cases requiring Medical Treatment followed up in 1912.

| Defect. | Cases followed up. | | | Result of Notification. | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Not yet reported | Treated. | | | | Total Un-treated. |
| | New Cases. | Old Cases. | Total Cases. | | Cured. | Im-proved. | Un-changed | Total Treated. | |
| Vision and Squint ... ... ... ... | 205 | 82 | 287 | 55 | — | 95 | 8 | 103 | 129 |
| Other External Eye Disease ... ... | 27 | 5 | 32 | 2 | 8 | 14 | — | 22 | 8 |
| Running Ears ... ... ... ... | 19 | 6 | 25 | 3 | 3 | 11 | — | 14 | 8 |
| Deafness ... ... ... ... ... | 47 | 6 | 53 | 15 | 6 | 10 | 1 | 17 | 21 |
| Tonsils and Adenoids ... ... ... | 119 | 100 | 219 | 39 | 80 | 20 | 5 | 105 | 75 |
| Skin Diseases ... ... ... ... ... | 110 | 18 | 128 | 13 | 32 | 41 | — | 73 | 42 |
| Diseases of Chest ... ... ... ... | 91 | 25 | 116 | 22 | 2 | 85 | 1 | 88 | 6 |
| General Debility, &c. ... ... ... ... | 36 | 11 | 47 | 10 | 1 | 29 | — | 30 | 7 |
| Various ... ... ... ... ... | 74 | 18 | 92 | 14 | 10 | 37 | 3 | 50 | 28 |
| Total ... ... | 728 | 271 | 999 | 173 | 142 | 342 | 18 | 502 | 324 |

# TABLE III.—Analysis of School Nurses' Visits to Cases referred to in Table II.

| Defects. | No. of Cases. | Times Visited. | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | once | twice | 3 times | 4 times | 5 times | 6 times | 7 times | 8 times | 9 times | 10 times | 11 times | 12 times | 13 times |
| Vision and Squint ... ... | 287 | 55 | 107 | 61 | 30 | 12 | 11 | 4 | 4 | 1 | 2 | — | — | — | — |
| Other External Eye Disease | 32 | 2 | 20 | 5 | 4 | — | — | — | 1 | — | — | — | — | — | — |
| Running Ears... ... ... | 25 | 3 | 13 | 7 | — | 1 | — | — | — | 1 | — | — | — | — | — |
| Deafness ... ... ... | 53 | 15 | 28 | 6 | 3 | — | — | — | — | — | — | 1 | — | — | — |
| Tonsils and Adenoids ... | 219 | 34 | 53 | 38 | 47 | 17 | 15 | 6 | 3 | 3 | — | 1 | — | 1 | 1 |
| Skin Diseases... ... ... | 128 | 13 | 68 | 27 | 15 | 3 | — | 2 | — | — | — | — | — | — | — |
| Diseases of Chest ... ... | 116 | 22 | 75 | 16 | 1 | 1 | 1 | — | — | — | — | — | — | — | — |
| General Debility, &c. ... | 47 | 8 | 24 | 13 | 2 | — | — | — | — | — | — | — | — | — | — |
| Various ... ... ... | 92 | 14 | 55 | 16 | 7 | — | — | — | — | — | — | — | — | — | — |
| Total ... ... | 999 | 166 | 443 | 189 | 109 | 34 | 27 | 12 | 8 | 5 | 2 | 2 | — | 1 | 1 |

## TABLE IV.—Analysis of Means of Treatment, and of cause of failure to obtain Medical Treatment.

| Defects. | Means of Medical Treatment. | | | Cause of failure to obtain Medical Treatment. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hospital. | Private Practitioners. | Total Treated. | (*a*) Poverty and Inability. | (*b*) Indifference | (*c*) Combination of (*a*) and (*b*) | (*d*) Awaiting Hospital Treatment | (*e*) No means to purchase Spectacles | (*f*) Treatment at home or by Chemist; satisfactory. | (*g*) Treatment at home or by Chemist; unsatisfactory. | Total Untreated. |
| Vision and Squint ... ... | 93 | 10 | 103 | 61 | 27 | 9 | 8 | 23 | 1 | — | 129 |
| Other External Eye Disease... | 20 | 2 | 22 | 3 | 1 | — | — | — | 4 | — | 8 |
| Running Ears ... ... | 10 | 4 | 14 | 2 | 3 | 1 | — | — | 1 | 1 | 8 |
| Deafness ... ... ... | 9 | 8 | 17 | 10 | 8 | — | — | — | 2 | 1 | 21 |
| Tonsils and Adenoids ... | 87 | 18 | 105 | 35 | 24 | 11 | 5 | — | — | — | 75 |
| Skin Disease ... ... ... | 19 | 54 | 73 | 2 | 1 | — | — | — | 21 | 18 | 42 |
| Diseases of Chest ... ... | 35 | 53 | 88 | 2 | — | — | — | — | 4 | — | 6 |
| General Debility, &c. ... | 8 | 22 | 30 | 3 | 1 | — | — | — | — | 3 | 7 |
| Various ... ... ... | 17 | 33 | 50 | 7 | 9 | — | 1 | — | 2 | 9 | 28 |
| Total ... ... | 298 | 204 | 502 | 125 | 74 | 21 | 14 | 23 | 35 | 32 | 324 |

## SYSTEMATIC (UNEXPECTED) EXAMINATION OF HEADS.

This work, described in my Report for 1911, was continued throughout the year. No previous notice of intended examination is given to the parents, and the Nurse visits the Schools unexpectedly, examining the children in successive groups.

Interest centres mainly upon a comparison of the results with those of last year.

| Condition of Scalp. | 1911 Girls Age 8–13 2421 Examined. | 1912 Girls Age 5–13 3149 Examined. |
|---|---|---|
|  | Percentage. | Percentage. |
| Entirely free from any trace of vermin | 2.8 | 11.7 |
| Vermin and Nits ... | 42.1 | 20.7 |
| Nits only ... ... | 55.1 | 67.6 |
|  | 100.0 | 100.0 |

This result may also be compared with that of Routine Inspection of Scalp (page 12).

As in previous years, all the worst cases were subjected to re-inspection until either improvement was secured or the child turned out of School. The work may be summarised as follows :—

| | | |
|---|---|---|
| Schools Visited ... ... ... ... | | 27 |
| Number of Scholars Inspected ... | | 3,149 |
| Number re-examined—2nd visit, | 690 | |
| 3rd ,, | 247 | |
| 4th ,, | 63 | |
| 5th ,, | 16 | |
| Total number of inspections made ... | | 4,165 |
| Total number of notices issued ... | | 716 |
| Number of scholars unimproved at finish | | 39 |

We hope very shortly to discontinue the recommendation of paraffin for the amelioration of verminous condition. It has proved very useful, but we have never been entirely free from the sense of danger incurred by its use, which, owing to the energy of the School Nurses in this department, has hitherto been very extensive.

As an insecticide it is happily no longer so urgently required as before, for we now rarely meet with the horrible conditions so common at one time. We have, therefore, adopted a new form of recommendation (see Appendix, page 32), which will be more useful for general use, and which has the advantage of containing directions that are both free from the danger attaching to the recommendation of paraffin, and are also more readily carried out.

In several instances Head Teachers have shown commendable energy in ameliorating the condition of girls' hair, and in securing the plaiting or tying up of the same. The results of such efforts are clearly shown in the improved conditions found upon examination. Exceptionally, the idea of lack of compulsory power seems to have prevented the Head Teachers of one or two departments from making any sustained effort to secure these reforms upon a voluntary basis.

## SCHOOL NURSES AND SCHOOL ATTENDANCE.

The Report for 1911 of the Board's Chief Medical Officer includes some important remarks in reference to the above, which appear to be well worthy of the Committee's consideration, in view of their possible application to our own area in the future. In so far as the work of the School Nurses brings them into daily and intimate contact with scholars and their homes, they may be said to be already acting partly in the capacity of Attendance Officers. The duties of the latter are mainly concerned in securing compliance with the law in respect of compulsory School Attendance. The energy with which this work has been performed by Attendance Officers in the past has resulted in practically limiting the number of absences to cases where medical unfitness is alleged as the justifiable cause of absence from School.

In the absence of medical evidence, the Attendance Officer has frequently to use his own discretion as to the validity of this excuse. There is no doubt that Hospital training would assist the forming of a correct judgment as to medical fitness for School.

In the past, greater energy has been devoted to getting healthy children into School than to ensuring that sick children are kept at home. In some cases, however, the medical cause of absence alleged is merely a fiction. From both points of view the School Nurse is well qualified by her training to advise parents and to supply information to the Education Authority. School Attendance being already in theory a question of health, in time it will become desirable that its practical regulation shall be re-organised, and placed upon an appropriate medical basis. The Board's Chief Medical Officer states* that "It is becoming a matter of importance in public health administration to ensure that

* Annual Report, 1911, page 101

the duties of the service in so far as they involve visits to the homes of the people should be concentrated so far as possible in one Official." With this view I am in complete accord, and I look forward to the time when the larger portion of the duties of Attendance Officer will be combined with those of Health Visitor and School Nurse.

## PHYSICALLY DEFECTIVE CHILDREN.

The children recommended for appropriate Institutional Training included 3 Blind, 1 Deaf, and 1 Epileptic Mentally Deficient.

Another Deaf child who was also Mentally Deficient was referred to the Special School.

Two of the blind cases recommended by the School Medical Officer for Institutional Training were referred by the Committee to a local practitioner. This action was superflous, and as carried out was inconsistent with the principle that "All the Medical work of the Authority should be controlled by the School Medical Officer" (Annual Report, 1911, Board's Chief Medical Officer, page 5).

## MENTAL DEFICIENCY.

17 cases (8 boys and 9 girls) were registered as Mentally Defective. Three of these were discovered at Routine Inspection—the remaining 14 resulting from Special Examination.

## MISCELLANEOUS.

### N.S.P.C.C.

14 cases of gross neglect were reported during 1912 to the above Society. The Inspector visited every case, and in certain instances successful prosecutions followed.

We are again indebted to this Society and its local Inspector for the assistance that has been rendered to us in our work, and our grateful acknowledgments are due to the local Secretary (Mr. E. R. Collisson) for the courtesy he has shown in dealing so promptly with all cases referred to him.

### TUBERCULOSIS EXHIBITION.

A Tuberculosis Exhibition, under the auspices of the National Association for the Prevention of Consumption, was held in Wolverhampton in November.

Popular Lectures were given, including an excellent address by the School Medical Officer of Sheffield upon the subject of "Open Air Schools."

The Education Committee being desirous of utilising the Exhibition as usefully as possible for the education of the Elementary School population in matters relating to the prevention of the spread of Tuberculosis, made arrangements whereby 1,200 scholars availed themselves of free admission, and were instructed in the various exhibits. The Exhibition was instructive, very well managed, and probably effected permanent good by helping to dispel ignorance connected with this subject.

## INFECTIOUS DISEASES.

We are not yet in a position to give the desired information with regard to the prevalence of infectious diseases, no system of notification to the School Medical Officer yet existing. 81 cases of Ringworm were voluntarily notified during the year. The treatment of this complaint is referred to on page 22.

On September 12th we excluded six scholars from St. Patrick's School on suspicion of scarlet fever—this disease having broken out in the locality. Two days later we examined the throats of 84 children at this School and separated a dozen scholars for more careful examination; of this number ten were found to have either a sore throat or feverish symptoms, and were accordingly excluded upon suspicion. Re-visited by the School Nurse a few days afterwards, one of the suspects was found to have left home for the hop-fields the day after exclusion; another suspect, with her mother, had left home upon a canal boat. The possibilities implied by such absurd defiance of ordinary prudence merit attention.

I am, Ladies and Gentlemen,

Your obedient Servant,

W. SPENCER BADGER.

February 6th, 1913.

# APPENDIX.

(Obverse).

Form M.I., 6 p.

## COUNTY BOROUGH OF WOLVERHAMPTON.

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### EDUCATION COMMITTEE.

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*PRIVATE.*

..... ..................................*191*

.................... ............................................*School.*

## NOTICE RESPECTING CONDITION OF HAIR AND SCALP.

*To the Parents or Guardians of*....................................

The Education Committee has to draw your attention to the condition of your child's head.

many nits

As the result of examination a condition of vermin and nits has been reported. You are requested to attend to this matter without delay.

By carefully carrying out the directions printed on the other side of this card, the condition is capable of immediate improvement, and can, in a short time, be completely remedied.

[OVER.

(Reverse).

## TO GET RID OF NITS, OR VERMIN AND NITS, FROM THE HAIR.*

Lather the head well with soft soap and warm water; allow the lather to remain for two minutes.

Then comb the lather out with a fine-toothed comb.

Some of the nits will adhere to the soap, and will be combed out with it.

Wash away any soap that remains with warm water.

Repeat this process daily for a week, and afterwards on alternative days until all nits have been removed.

NOTE.—In addition to the above, the hair should be combed, as a routine practice, night and morning with the finest toothed comb that can be procured.

[OVER.

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* This Form is based upon that in use at Stoke-on-Trent.